

instant application were rendered obvious by U.S. Patent No. 6,596,401 (Terry, et al.). In an informal telephone conference with Examiner Chorbaji on November 18, 2004, the undersigned discussed further amendment to the application that would place limitations upon the breadth of the current claims pending in the application. Examiner Chorbaji indicated that if the application were amended as stated above an additional search would have to be undertaken, but that such an amendment after a Final Office Action is non-responsive and that either an appeal or request for continued examination pursuant to 37 CFR §1.114 was the only appropriate response under the rules. In response thereto the Applicant herein respectfully requests continued examination with the following being his required submission under the rules. 37 CFR §1.114.

Hence the Applicant requests that the Claims be amended as follows:

## **IN THE CLAIMS**

### **CLAIM 1. (currently and previously amended)**

A disinfection and purification composition for producing potable fluids, comprising consisting essentially of:

- (a) at least one metal selected from the group consisting of the metals in the Periodic Table of the Elements, groups 1b,2b,3b,4b,5b,6b,7b,8,3a,4a, and 5a;
- (b) at least one plant extract ~~or chemical equivalent thereof~~; and
- (c) at least one alcohol.

### **CLAIM 2. (currently and previously amended)**

A disinfection and purification composition for producing potable fluids, comprising consisting essentially of:

- (a) at least one metal selected from the group consisting of the metals in the Periodic Table of the Elements, groups 1b,2b,3b,4b,5b,6b,7b,8,3a,4a, and 5a; and
- (b) at least one plant extract ~~or chemical equivalent thereof~~.

### **CLAIM 3. (currently and previously amended)**

A disinfection and purification composition for producing potable fluids, comprising consisting essentially of:

- (a) at least one metal selected from the group consisting of the metals in the Periodic Table of the Elements, groups 1b,2b,3b,4b,5b,6b,7b,8,3a,4a, and 5a; and
- (b) at least one alcohol.

**CLAIM 4. (currently amended)** The disinfection and purification composition for producing potable fluids of **CLAIM 1** wherein at least one of the metals selected is copper.

**CLAIM 5. (currently amended)** The disinfection and purification composition for producing potable fluids of **CLAIM 1** wherein at least one of the metals selected is silver.

**CLAIM 6. (currently amended)** The disinfection and purification composition for producing potable fluids of **CLAIM 2** wherein at least one of the metals selected is copper.

**CLAIM 7. (currently amended)** The disinfection and purification composition for producing potable fluids of **CLAIM 2** wherein at least one of the metals selected is silver.

**CLAIM 8. (currently amended)** The disinfection and purification composition for producing potable fluids of **CLAIM 3** wherein at least one of the metals selected is copper.

**CLAIM 9. (currently amended)** The disinfection and purification composition for producing potable fluids of **CLAIM 3** wherein at least one of the metals selected is silver.

**CLAIM 10.** (currently amended) The disinfection and purification composition for producing potable fluids of **CLAIM 1** wherein the metals selected are copper and silver.

**CLAIM 11.** (currently amended) The disinfection and purification composition for producing potable fluids of **CLAIM 2** wherein the metals selected are copper and silver.

**CLAIM 12.** (currently amended) The disinfection and purification composition for producing potable fluids of **CLAIM 3** wherein the metals selected are copper and silver.

**CLAIM 13.** (currently and previously amended) The disinfection and purification composition for producing potable fluids of **CLAIM 1** wherein the plant extracts~~or chemical equivalents thereof~~ are selected from the group consisting of angiosperms~~or chemical equivalents thereof~~.

**CLAIM 14.** (currently amended) The disinfection and purification composition for producing potable fluids of **CLAIM 1** wherein the alcohol is glycerol.

**CLAIM 15.** (currently and previously amended) The disinfection and purification composition for producing potable fluids of **CLAIM 2** wherein the plant extracts~~or chemical equivalents thereof~~ are selected from the group consisting of angiosperms~~or chemical equivalents thereof~~.

**CLAIM 16.** (currently amended) The disinfection and purification composition for producing potable fluids of **CLAIM 3** wherein the alcohol is glycerol.

**CLAIM 17.** (currently and previously amended) The disinfection and purification composition for producing potable fluids of **CLAIM 1** wherein the plant extract is extracted from grapefruit~~or chemical equivalent thereof~~.

**CLAIM 18.** (currently and previously amended) The disinfection and purification composition for producing potable fluids of **CLAIM 2** wherein the plant extract is extracted from grapefruit~~or chemical equivalent thereof~~.

**CLAIM 19.** (currently and previously amended) A method of manufacturing the disinfection and purification composition for producing potable fluids of **CLAIM 1** ~~comprising~~ consisting essentially of the steps of:

selecting at least one of the metals from the group consisting of the metals in the Periodic Table of the Elements, groups 1b,2b,3b,4b,5b,6b,7b,8,3a,4a, and 5a;

selecting the plant extract~~or chemical equivalent thereof~~;

selecting the alcohol; and

mixing the selected metals together with the selected plant extract~~or chemical equivalent thereof~~ and the selected alcohol.

**CLAIM 20.** (currently and previously amended) A method of manufacturing the disinfection and purification composition for producing potable fluids of **CLAIM 2** ~~comprising~~ consisting essentially of the steps of:

selecting at least one of the metals from the group consisting of the metals in the Periodic Table of the Elements, groups 1b,2b,3b,4b,5b,6b,7b,8,3a,4a, and 5a;

selecting the plant extract ~~or chemical equivalent thereof~~; and

mixing the selected metals together with the selected plant extract ~~or chemical equivalent thereof~~.

**CLAIM 21.** (currently and previously amended) A method of manufacturing the disinfection and purification composition for producing potable fluids of **CLAIM 3** ~~comprising~~ consisting essentially of the steps of:

selecting at least one of the metals from the group consisting of the metals in the Periodic Table of the Elements, groups 1b,2b,3b,4b,5b,6b,7b,8,3a,4a, and 5a;

selecting the alcohol; and

mixing the selected metals together with the selected alcohol.

**CLAIM 22.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 19** ~~comprising~~ consisting essentially of the steps of:

infusing the mixture into a user selected item.

**CLAIM 23.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 19** ~~comprising~~ consisting essentially of the steps of:

applying the mixture onto the surface of a user selected item.

**CLAIM 24.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 19** ~~comprising~~ consisting essentially of the steps of:

dissolving the mixture into a user selected liquid.

**CLAIM 25.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 20** ~~comprising~~ consisting essentially of the steps of:

infusing the mixture into a user selected item.

**CLAIM 26.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 20** ~~comprising consisting essentially of~~ the steps of:

applying the mixture onto the surface of a user selected item.

**CLAIM 27.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 20** ~~comprising consisting essentially of~~ the steps of:

dissolving the mixture into a user selected liquid.

**CLAIM 28.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 21** ~~comprising consisting essentially of~~ the steps of:

infusing the mixture into a user selected item.

**CLAIM 29.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 21** ~~comprising consisting essentially of~~ the steps of:

applying the mixture onto the surface of a user selected item.

**CLAIM 30.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 21** ~~comprising consisting essentially of~~ the steps of:

dissolving the mixture into a user selected liquid.

**CLAIM 31.** (currently and previously amended) A method of manufacturing the disinfection and purification composition for producing potable fluids of **CLAIM 1** ~~comprising consisting essentially of~~ the steps of:

selecting at least one of the metals from the group consisting of the metals in the Periodic Table of the Elements, groups 1b,2b,3b,4b,5b,6b,7b,8,3a,4a, and 5a;

selecting the plant extract ~~or chemical equivalent thereof~~;

selecting the alcohol;

selecting at least one disinfectant compound from the group consisting of ozone, peroxides, halogens from the Periodic Table of the Elements, group 7a, halogenated hydrocarbons, amides, amines, and halogenated dioxides; and

mixing the selected metals together with the selected plant extract ~~or chemical equivalent thereof~~, the selected alcohol and the selected disinfectant compounds.

**CLAIM 32.** (currently and previously amended) A method of manufacturing the disinfection and purification composition for producing potable fluids of **CLAIM 2** ~~comprising consisting essentially of~~ the steps of:

selecting at least one of the metals from the group consisting of the metals in the Periodic Table of the Elements, groups 1b,2b,3b,4b,5b,6b,7b,8,3a,4a, and 5a;

selecting the plant extract~~or chemical equivalent thereof~~;

selecting at least one disinfectant compound from the group consisting of ozone, peroxides, halogens from the Periodic Table of the Elements, group 7a, halogenated hydrocarbons, amides, amines, and halogenated dioxides; and

mixing the selected metals together with the selected plant extract~~or chemical equivalent thereof~~ and the selected disinfectant compounds.

**CLAIM 33.** (currently and previously amended) A method of manufacturing the disinfection and purification composition for producing potable fluids of **CLAIM 3** ~~comprising consisting essentially of~~ the steps of:

selecting at least one of the metals from the group consisting of the metals in the Periodic Table of the Elements, groups 1b,2b,3b,4b,5b,6b,7b,8,3a,4a, and 5a;

selecting the alcohol;

selecting at least one disinfectant compound from the group consisting of ozone, peroxides, halogens from the Periodic Table of the Elements, group 7a, halogenated hydrocarbons, amides, amines, and halogenated dioxides; and

mixing the selected metals together with the selected alcohol and the selected disinfectant compounds.

**CLAIM 34.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 31** ~~comprising consisting essentially of~~ the steps of:

infusing the mixture into a user selected item.

**CLAIM 35.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 31** ~~comprising consisting essentially of~~ the steps of:

applying the mixture onto the surface of a user selected item.

**CLAIM 36.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 31** ~~comprising consisting essentially of~~ the steps of:

dissolving the mixture into a user selected liquid.

**CLAIM 37.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 32** comprising consisting essentially of the steps of:

infusing the mixture into a user selected item.

**CLAIM 38.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 32** comprising consisting essentially of the steps of:

applying the mixture onto the surface of a user selected item.

**CLAIM 39.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 32** comprising consisting essentially of the steps of:

dissolving the mixture into a user selected liquid.

**CLAIM 40.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 33** comprising consisting essentially of the steps of:

infusing the mixture into a user selected item.

**CLAIM 41.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 33** comprising consisting essentially of the steps of:

applying the mixture onto the surface of a user selected item.

**CLAIM 42.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 33** comprising consisting essentially of the steps of:

dissolving the mixture into a user selected liquid.

**CLAIM 43.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 19** comprising consisting essentially of the steps of:

infusing the mixture into a user selected item; and

exposing the mixture infused item to at least one treatment selected from the group consisting of radiation, light, sonic blasts and extremes of temperature.

**CLAIM 44.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 19** ~~comprising~~ consisting essentially of the steps of:

applying the mixture onto the surface of a user selected item; and  
exposing the mixture applied surface to at least one treatment selected from the group consisting of radiation, light, sonic blasts and extremes of temperature.

**CLAIM 45.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 19** ~~comprising~~ consisting essentially of the steps of:

dissolving the mixture into a user selected liquid; and  
exposing the liquid dissolved mixture to at least one treatment selected from the group consisting of radiation, light, sonic blasts and extremes of temperature.

**CLAIM 46.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 20** ~~comprising~~ consisting essentially of the steps of:

infusing the mixture into a user selected item; and  
exposing the mixture infused item to at least one treatment selected from the group consisting of radiation, light, sonic blasts and extremes of temperature.

**CLAIM 47.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 20** ~~comprising~~ consisting essentially of the steps of:

applying the mixture onto the surface of a user selected item; and  
exposing the mixture applied surface to at least one treatment selected from the group consisting of radiation, light, sonic blasts and extremes of temperature.

**CLAIM 48.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 20** ~~comprising~~ consisting essentially of the steps of:

dissolving the mixture into a user selected liquid; and  
exposing the liquid dissolved mixture to at least one treatment selected from the group consisting of radiation, light, sonic blasts and extremes of temperature.

**CLAIM 49.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 21** ~~comprising~~ consisting essentially of the steps of:



infusing the mixture into a user selected item; and  
exposing the mixture infused item to at least one treatment selected from the group consisting of radiation, light, sonic blasts and extremes of temperature.

**CLAIM 50.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 21** comprising consisting essentially of the steps of:

applying the mixture onto the surface of a user selected item; and  
exposing the mixture applied surface to at least one treatment selected from the group consisting of radiation, light, sonic blasts and extremes of temperature.

**CLAIM 51.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 21** comprising consisting essentially of the steps of:

dissolving the mixture into a user selected liquid; and  
exposing the liquid dissolved mixture to at least one treatment selected from the group consisting of radiation, light, sonic blasts and extremes of temperature.

**CLAIM 52.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 31** comprising consisting essentially of the steps of:

infusing the mixture into a user selected item; and  
exposing the mixture infused item to at least one treatment selected from the group consisting of radiation, light, sonic blasts and extremes of temperature.

**CLAIM 53.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 31** comprising consisting essentially of the steps of:

applying the mixture onto the surface of a user selected item; and  
exposing the mixture applied surface to at least one treatment selected from the group consisting of radiation, light, sonic blasts and extremes of temperature.

**CLAIM 54.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 31** comprising consisting essentially of the steps of:

dissolving the mixture into a user selected liquid; and  
exposing the liquid dissolved mixture to at least one treatment selected from the group consisting of radiation, light, sonic blasts and extremes of temperature.

**CLAIM 55.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 32** ~~comprising~~ consisting essentially of the steps of:

infusing the mixture into a user selected item; and

exposing the mixture infused item to at least one treatment selected from the group consisting of radiation, light, sonic blasts and extremes of temperature.

**CLAIM 56.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 32** ~~comprising~~ consisting essentially of the steps of:

applying the mixture onto the surface of a user selected item; and

exposing the mixture applied surface to at least one treatment selected from the group consisting of radiation, light, sonic blasts and extremes of temperature.

**CLAIM 57.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 32** ~~comprising~~ consisting essentially of the steps of:

dissolving the mixture into a user selected liquid; and

exposing the liquid dissolved mixture to at least one treatment selected from the group consisting of radiation, light, sonic blasts and extremes of temperature.

**CLAIM 58.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 33** ~~comprising~~ consisting essentially of the steps of:

infusing the mixture into a user selected item; and

exposing the mixture infused item to at least one treatment selected from the group consisting of radiation, light, sonic blasts and extremes of temperature.

**CLAIM 59.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 33** ~~comprising~~ consisting essentially of the steps of:

applying the mixture onto the surface of a user selected item; and

exposing the mixture applied surface to at least one treatment selected from the group consisting of radiation, light, sonic blasts and extremes of temperature.

**CLAIM 60.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 33** ~~comprising~~ consisting essentially of the steps of:

dissolving the mixture into a user selected liquid; and

exposing the liquid dissolved mixture to at least one treatment selected from the group consisting of radiation, light, sonic blasts and extremes of temperature.

**CLAIM 61.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 19** comprising consisting essentially of the steps of:

placing the mixture in a filtration device such that a user selected fluid must pass through the filtration device and dissolve the mixture in the user selected fluid.

**CLAIM 62.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 20** comprising consisting essentially of the steps of:

placing the mixture in a filtration device such that a user selected fluid must pass through the filtration device and dissolve the mixture in the user selected fluid.

**CLAIM 63.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 21** comprising consisting essentially of the steps of:

placing the mixture in a filtration device such that a user selected fluid must pass through the filtration device and dissolve the mixture in the user selected fluid.

**CLAIM 64.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 31** comprising consisting essentially of the steps of:

placing the mixture in a filtration device such that a user selected fluid must pass through the filtration device and dissolve the mixture in the user selected fluid.

**CLAIM 65.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 32** comprising consisting essentially of the steps of:

placing the mixture in a filtration device such that a user selected fluid must pass through the filtration device and dissolve the mixture in the user selected fluid.

**CLAIM 66.** (currently and previously amended) A method of using the disinfection and purification composition for producing potable fluids manufactured by the method of manufacture of **CLAIM 33** comprising consisting essentially of the steps of:

placing the mixture in a filtration device such that a user selected fluid must pass through the filtration device and dissolve the mixture in the user selected fluid.

**CLAIM 67.** (new) A disinfection and purification composition consisting essentially of:

- (a) a user selected fluid;
- (b) at least one metal selected from the group consisting of the metals in the Periodic Table of the Elements, groups 1b,2b,3b,4b,5b,6b,7b,8,3a,4a, and 5a, dissolved in the user selected fluid such that if the metal selected is a United States Environmental Protection Agency regulated Priority Toxic Pollutant the concentration of the metal selected once dissolved shall be no more than the United States Environmental Protection Agency's maximum freshwater concentration Priority Toxic Pollutant criteria for the metal selected;
- (c) at least one plant extract dissolved in the user selected fluid such that if the plant extract is a United States Environmental Protection Agency regulated Priority Toxic Pollutant the concentration of the plant extract once dissolved shall be no more than the United States Environmental Protection Agency's maximum freshwater concentration Priority Toxic Pollutant criteria for the plant extract; and
- (d) at least one alcohol dissolved in the user selected fluid such that if the alcohol is a United States Environmental Protection Agency regulated Priority Toxic Pollutant the concentration of the alcohol once dissolved shall be no more than the United States Environmental Protection Agency's maximum freshwater concentration Priority Toxic Pollutant criteria for the alcohol.

**CLAIM 68.** (new) A disinfection and purification composition consisting essentially of:

- (a) a user selected fluid;
- (b) at least one metal selected from the group consisting of the metals in the Periodic Table of the Elements, groups 1b,2b,3b,4b,5b,6b,7b,8,3a,4a, and 5a, dissolved in the user selected fluid such that if the metal selected is a United States Environmental Protection Agency regulated Priority Toxic Pollutant the concentration of the metal selected once dissolved shall be no more than the United States Environmental Protection Agency's maximum freshwater concentration Priority Toxic Pollutant criteria for the metal selected; and
- (c) at least one plant extract dissolved in the user selected fluid such that if the plant extract is a United States Environmental Protection Agency regulated Priority Toxic Pollutant the concentration of the plant extract once dissolved shall be no more than the United States Environmental Protection Agency's maximum freshwater concentration Priority Toxic Pollutant criteria for the plant extract.

**CLAIM 69.** (new) A disinfection and purification composition consisting essentially of:

- (a) a user selected fluid:

(b) at least one metal selected from the group consisting of the metals in the Periodic Table of the Elements, groups 1b,2b,3b,4b,5b,6b,7b,8,3a,4a, and 5a, dissolved in the user selected fluid such that if the metal selected is a United States Environmental Protection Agency regulated Priority Toxic Pollutant the concentration of the metal selected once dissolved shall be no more than the United States Environmental Protection Agency's maximum freshwater concentration Priority Toxic Pollutant criteria for the metal selected; and

(c) at least one alcohol dissolved in the user selected fluid such that if the alcohol is a United States Environmental Protection Agency regulated Priority Toxic Pollutant the concentration of the alcohol once dissolved shall be no more than the United States Environmental Protection Agency's maximum freshwater concentration Priority Toxic Pollutant criteria for the alcohol.